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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,622	07/25/2000	Eiichiro Ikeda	35.C14634	6697

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EXAMINER

SOLOMON, GARY L

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/07/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,622

Applicant(s)

IKEDA, EIICHIRO

Examiner

Gary L Solomon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. In accordance with the Information Disclosure Statement filed on 10/19/2000, application number 08/689,054 (now patent number 6,160,579) has been reviewed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which, is not enabling. The output of a chroma signal of m bits as a chroma signal of n bits by an output apparatus, comprising: gamma converting means for gamma converting the chroma signal of m bits into a chroma signal of k bits;

a color converting means for converting the chroma signal of k bits obtained by said gamma converting means into a signal of k bits showing a brightness and a color tone;

and a bit converting means for converting the signal of k bits showing the brightness and color tone (Column 2, Lines 34-49) obtained by said color converting means into a signal of n bits showing a brightness and a color tone, wherein $m > n = k + 1$, critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

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The examiner interprets Drawing 2 to illustrate m bits at 11, and then converts into k at 8 bits, then into n at 7 bits. This in turn does not satisfy the equation set forth at the end of claim 1.

The equation should read $n - 1$ in order for it to be correct.

5. Claims 1 and 5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claims 1 and 5 are contradictory to each other. In no way, can n be less than k and satisfy the equation at the end of claim 1. Appropriate Correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwung (US 5,473,373).

For claims 1 and 6, Hwung discloses a signal processing apparatus and method which can output a chroma signal of m bits as a chroma signal of n bits by an output apparatus (Column 2, Lines 34-49), comprising: gamma converting means (Figure 8) for gamma converting the chroma signal of m bits into a chroma signal of k bits;

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a color converting means for converting the chroma signal of k bits obtained by said gamma converting means (Figure 8) into a signal of k bits showing a brightness and a color tone (Column 2, Lines 34-49):

and a bit converting means for converting the signal of k bits showing the brightness and color tone (Column 2, Lines 34-49) obtained by said color converting means into a signal of n bits showing a brightness and a color tone (Column 5, Line 55 through Column 6, Line 30), wherein $m > n = k - 1$ (the claim says $k+1$). **The claim is being anticipated in view of the applicant's specification to be $k+1$.**

In Figure 8, 10 (m) bits are converted to 9 (k) then to 8(n).

For claims 2 and 7, Hwung discloses all the previous limitations wherein said color converting means converts the chroma signal into color difference signals (Cr, Cb). Color difference signals (Cr, Cb) are inherent in a conversion from a chroma signal

For claims 3 and 8, Hwung discloses all the previous limitations an apparatus according to claim 2, wherein said bit converting means linearly converts a signal at a predetermined input level or lower in the color difference signals (Cr, Cb) of k bits obtained by said color converting means into color difference signals (Cr, Cb) of n bits and non-linearly converts a signal at the predetermined input level or higher into the color difference signals (Cr, Cb) of n bits (Title; Abstract; Figure 6).

Hwung teaches the use of linear conversion at a predetermined input level or lower in his Abstract. He further teaches the use of nonlinear correction for signals at a predetermined input level or higher in his Abstract (Lines 6-7) and is illustrated in Figure 8. The medium levels of Hwung are the predetermined input level or higher.

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwung (US 5,473,373).

For claims 4 and 9, Hwung discloses all the previous limitations, but lacks specific teaching wherein said color converting means converts the chroma signal into chromaticity signals (U, V).

Chromaticity signals may either be (Cr, Cb) or (U, V). There is a very subtle difference in the way they are calculated. It is therefore, in an obvious variation in Hwung's system that (U, V) signals would be converted by the converting means. Chromaticity signals used as either (Cr, Cb) or (U, V) is a well-known principle and therefore, would be an obvious variation to one of ordinary skill in the art at the time of the invention.

For claims 5 and 10, Hwung discloses the bit converting means to omit one upper bit in the chromaticity signals of k bits and outputs n lower bits (Figure 8, Element 70). As stated previously, Hwung lacks specific teaching of the chromacity signals (U, V). However, Hwung does disclose the broad teaching of converting both luminance and chrominance signals through his system. . Chromaticity signals used as either (Cr, Cb) or (U, V) is a well-known principle

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and therefore, would be an obvious variation to one of ordinary skill in the art at the time of the invention.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L Solomon whose telephone number is (703)-305-4370.

The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christensen, B Andrew can be reached on (703)-308-9644.

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314, (for informal or draft communications, please label
"Proposed" or "Draft")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the customer service number **(703) 306-0377**.


October 31, 2003



**ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**